

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YTSEN WIELSTRA
and JOLANDA HARMA SAGITTA WINKEL

Appeal 2007-1903
Application 10/047,024
Technology Center 1700

Decided: July 6, 2007

Before CHUNG K. PAK, CATHERINE Q. TIMM, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 1-11,
the only claims pending in this application. We have jurisdiction over the
appeal pursuant to 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to a method of preparing a lacquer
composition under basic conditions which provides for a controlled coupling

of Si-OH groups and prevents premature gelation. Specification 1:23-25.

Independent claims 1 and 10 are illustrative of the invention:

1. A method for producing a lacquer composition, the method comprising the step of adding silica particles to a reaction mixture comprising a first organosilane compound and a metal alkoxide under basic conditions, resulting in a lacquer composition containing silica particles.

10. A starting material composition for obtaining a lacquer composition, the starting material composition comprising an organosilane compound, silica particles, a base, and a metal alkoxide.

The references relied upon by the Examiner are:

Nogami	US 5,700,391	Dec. 23, 1997
JRS Corp.	EP 1 022 318 A2	Jul. 26, 2000

The Examiner made the following rejections:

1. Claims 1, 2, and 4-11 under 35 U.S.C§102(b) as anticipated by Nogami.
2. Claims 4 and 5 under 35 U.S.C§ 103(a) as unpatentable over Nogami.
3. Claims 1-11 under 35 U.S.C§ 103(a) as unpatentable over JSR, taken with Nogami.

ISSUE

The Examiner contends that Nogami discloses each and every feature of Appellants' claimed invention. Appellants contend that Nogami fails to anticipate the claims because Nogami does not teach the addition of silica particles and does not disclose a reaction mixture containing both an organosilane compound and a metal alkoxide under basic conditions. The

issue before us is: Has the Examiner shown that the claims are anticipated by Nogami?

For the reasons discussed below, we answer this question in the affirmative.

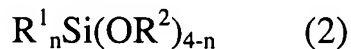
RELEVANT FINDINGS OF FACT

1) Nogami discloses a liquid coating composition comprising: a solution obtained by hydrolyzing a tetraalkoxysilane of the general formula



wherein R represents an alkyl group having from 1 to 5 carbon atoms, in an organic solvent in the presence of an alkaline catalyst;

at least one of (a) a hydrolyzed product of an alkoxysilane of the general formula



wherein R^1 represents a group having 1 to 18 carbon atoms, said group being an alkyl group, an alkenyl group or an aryl group, R^2 represents an alkyl group having from 1 to 5 carbon atoms, and n represents an integer of from 0 to 2, and (b) a hydrolyzed product of a tetraalkoxy titanium of the general formula



wherein R^3 represents an alkyl group having from 1 to 5 carbon atoms;

an aluminum salt; and

a deposition inhibitor, all of which have been uniformly mixed in an organic solvent.

- 2) Nogami teaches that R¹ may be a 3-glycidoxypentyl group. Col. 3, l. 17.
- 3) Nogami teaches that the aluminum salt is used to improve hardness of the film. Col. 3, ll. 28-29.
- 4) Nogami teaches that the deposition inhibitor prevents crystallization of the aluminum salt on the surface of the film during drying. The deposition inhibitor may be N-methylpyrrolidone. Col. 3, ll. 40-44.
- 5) Nogami states that the deposition inhibitor is used in an amount at least equal in weight proportion to the aluminum salt in terms of Al₂O₃. Col. 3, ll. 45-47.
- 6) Nogami teaches that the catalyst used for hydrolysis of the tetraalkoxysilane of formula (1) must be basic. Col. 3, ll. 55-56.
- 7) According to Nogami, the hydrolyzed solution obtained by hydrolyzing the tetraalkoxysilane of formula (1) forms silica particles as the hydrolyzed product. Col. 4, ll. 21-25.
- 8) According to Nogami, the hydrolysis of the alkoxysilane of (2) is conducted in the presence of an acid catalyst and an aluminum salt. Nogami, col. 4, ll. 29-33.
- 9) Nogami discloses that:

The tetraalkoxy titanium of formula (3) to be employed in the present invention may be added to the alkoxysilane of formula (2) during its hydrolysis. Apart from this, however, addition of the hydrolyzed solution of the alkoxysilane of formula (2) to a solution of the tetraalkoxy titanium in an organic solvent is preferred to obtain a liquid coating composition having excellent storage stability. The hydrolyzed solution of the

alkoxysilane of formula (2) may contain the hydrolyzed solution of the tetraalkoxysilane of formula (1) formed in the presence of an alkaline catalyst, with no problem. Col. 4, l. 65-col. 5, l. 8.

[T]he hydrolyzed solution of the tetraalkoxysilane of formula (1) may well be added to the mixture of the hydrolyzed solution of the alkoxysilane of formula (2) and the solution of the tetraalkoxy titanium in an organic solvent. In the absence of the alkoxysilane component of formula (2), as the case may be, a solution of the mixture comprising water, an aluminum salt and a deposition inhibitor is first added to the solution of the tetraalkoxy titanium in an organic solvent and then the hydrolyzed solution of the tetraalkoxysilane of formula (1) is added thereto. For the purpose of further improving the storage stability of the liquid coating composition of the present invention, containing the tetraalkoxy titanium of formula (3), it is preferred that the tetraalkoxy titanium is first subjected to partial inter-esterification with a glycol such as ethylene glycol, propylene glycol, hexylene glycol or the like and then mixed with the hydrolyzed solutions of alkoxysilanes by the above-mentioned methods. Col. 5, ll. 9-26.

- 10) In Example 1, Nogami discloses preparation of a solution by mixing tetraethoxysilane, ethanol, water and aqueous ammonia as the alkaline catalyst. According to Nogami, silica particles were formed by hydrolysis. Example 1, Solution (A).
- 11) In Example 12, Nogami discloses preparation of a titanium-containing hydrolyzed solution by mixing tetraethoxysilane and methyltriethoxysilane in N-methylpyrrolidone with a tetraisopropoxy titanium/propylene glycol slurry. A liquid coating

composition was prepared by mixing the titanium-containing hydrolyzed solution with Solution (A) from Example 1.

ANALYSIS AND CONCLUSIONS

Appellants have not presented separate arguments as to any particular claim. Accordingly, we decide this appeal on the basis of claim 10 as to the rejection of claims 1, 2, and 4-11 under 35 U.S.C§ 102(b) as anticipated by Nogami and claims 1-11 under 35 U.S.C§ 103(a) as unpatentable over JSR, taken with Nogami. We decide this appeal on the basis of claim 4 as to the rejection of claims 4 and 5 under 35 U.S.C§ 103(a) as unpatentable over Nogami. 37 C.F.R. §41.37(c)(1)(vii).

The Examiner found that Nogami discloses preparation of a composition which is capable of being used as a lacquer coating. The composition includes a hydrolyzed solution obtained by hydrolyzing a tetraalkoxysilane of formula (1) in an organic solvent in the presence of an alkaline catalyst to form silica particles as the hydrolyzed product. Findings of Fact 1 and 7. The composition further includes a hydrolyzed product of a tetraalkoxy titanium and/or a hydrolyzed product of an alkoxysilane. Finding of Fact 1. Thus, the Examiner established a *prima facie* showing that Nogami anticipates Appellants' claimed starting material composition comprising an organosilane compound, silica particles, a base, and a metal alkoxide.

Appellants do not contest the aforementioned findings by the Examiner. Rather, Appellants argue that Nogami fails to anticipate the claims because (1) Nogami forms silica particles *in situ* and (2) Nogami does not disclose a reaction mixture containing both an organosilane

compound and a metal alkoxide under basic conditions. We do not find these arguments persuasive since they are not commensurate in scope with the language of claim 10, i.e., claim 10 does not require the formation of silica particles *in situ* and does not require “basic conditions”.

The rejection of claims 1, 2, and 4-11 under 35 U.S.C§ 102(b) as anticipated by Nogami is affirmed. Having concluded that claim 10 is anticipated by Nogami, we also affirm the rejection of claims 1-11 under 35 U.S.C§ 103(a) as unpatentable over JSR, taken with Nogami. Having concluded that claims 4 and 5 are anticipated by Nogami, we also affirm the rejection of claims 4 and 5 under 35 U.S.C§ 103(a) as unpatentable over Nogami. *See Connell v. Sears Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983) (quoting *In re Fracalossi*, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982)) (“Anticipation is the epitome of obviousness.”). *See also, In re McDaniel*, 293 F.3d 1379, 1383 63 USPQ2d 1462, 1464-65 (Fed. Cir. 2002) (finding that the Board did not err in selecting claim 53 as representative of a separate§ 102(b) rejection of claims 61-63, because claims 61-63 were rejected over some of the same references and under the same statutory provision as claim 53, and, therefore shared common grounds of rejection with Claim 53).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(vi) (effective Sept. 13, 2004).

AFFIRMED

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